

# Service Area Plan

## *Department Of Conservation And Recreation*

### *Dam Inventory, Evaluation and Classification and Flood Plain Management (50314)*

---

## **Service Area Background Information**

### **Service Area Description**

Promote the proper design, construction, operation, and maintenance of dams to protect public safety and property and to assist communities in proper management of development in Virginia's floodplains.

### **Service Area Alignment to Mission**

By working with communities and citizens in dam safety and floodplain management programs, we are promoting public safety and enhancing conservation of natural resources.

# Service Area Plan

## Department Of Conservation And Recreation

### ***Dam Inventory, Evaluation and Classification and Flood Plain Management (50314)***

---

#### **Service Area Statutory Authority**

- The department is required to establish guidelines which will meet the minimum requirements of the National Flood Insurance Program under the National Flood Insurance Act of 1968 (42 USC §4001 et seq.). Code of Virginia, Title 10.1, Chapter 6, Article 1.
- The director upon approval from the Virginia Soil and Water Conservation Board, may make grants or loans from the Dam Safety, Flood Prevention and Protection Assistance Fund to local governments for the purpose of providing matching funds for flood prevention or protection. The director, upon approval from the Virginia Soil and Water Conservation Board, may also make grants and loans to local governments owning dams and to make loans to private entities for the design, repair and the safety modifications of dams identified in safety reports and to make grants to localities for the mapping and digitization of dam break inundation zones. Funding to assist localities in the development of these maps, is contingent upon the localities contributing a local match. The highest priority for awarding funds shall be placed on assisting with the mapping of the highest class of dams. The director shall, after consultation with all interested parties, develop a guidance document governing project eligibility and project priority criteria. The Virginia Resources Authority shall administer and manage the Fund, and establish the interest rates and the repayment terms of such loans as provided in this article, in accordance with a memorandum of agreement with the director. During the maintenance, construction, or alteration of any dam or reservoir, the Department shall make periodic inspections for the purpose of securing conformity with the approved plans and specifications. The Department shall require the owner to perform at his expense such work or tests as necessary to obtain information sufficient to enable the Department to determine whether conformity with the approved plans and specifications is being secured. If, after any inspections, investigations, or examinations, or at any time as the work progresses, or at any time prior to issuance of a certificate of approval, it is found by the Director that project modifications or changes are necessary to ensure conformity with the approved plans and specifications, the Director may issue an administrative order to the owner to comply with the plans and specifications. The Director may issue a temporary stop work order on a construction or alteration project if he finds that an owner is constructing or altering a dam without having first obtained the necessary certificate of approval, or if the activities are not in accordance with approved plans and specifications. Code of Virginia, Title 10.1, Chapter 6, Article 1.2.
- The department is responsible for coordinating a comprehensive flood control program for the Commonwealth. Code of Virginia, Title 10.1, Chapter 6, Article 6.
- The board may approve plans for capture and storage of floodwaters by riparian landowners, inspect impoundment structures, and make regulations for proper and safe construction of impoundment structures. The Board shall promulgate regulations to ensure that impounding structures in the Commonwealth are properly and safely constructed, maintained and operated. The Board may delegate to the Director or his designee any of the powers and duties vested in the Board by the Dam Safety Act, except the adoption and promulgation of regulations or the issuance of dam safety certificates. Delegation shall not remove from the Board authority to enforce the provisions of the Dam Safety Act. The Board and its agents and employees are authorized to enter any property at reasonable times and under reasonable circumstances to perform such inspections and tests or to take such other actions it deems necessary to fulfill its responsibilities, including the inspection of dams, provided that the Board or its agents or employees make a reasonable effort to obtain the consent of the owner of the land prior to entry. If entry is denied, the Board or its designated agents or employees are authorized to apply to any magistrate whose territorial jurisdiction encompasses the property to be inspected or entered for a warrant authorizing such investigation, tests or other actions. Such warrant shall issue if the magistrate finds probable cause to believe that there is a dam on such property which is not known to be safe. The Director, upon approval from the Virginia Soil and Water Conservation Board, shall direct the distribution of loans from the Dam Safety, Flood Prevention and Protection Assistance Fund to local governments and private entities and the distribution of grants to local governments. Upon petition for

# Service Area Plan

## Department Of Conservation And Recreation

### Dam Inventory, Evaluation and Classification and Flood Plain Management (50314)

a hearing on a director's administrative order by a dam owner, the Board has the authority to affirm, modify, amend, or cancel the director's administrative orders. The Board may bring suit in the name of the Commonwealth in any court of competent jurisdiction to enjoin the unlawful construction, modification, operation, or maintenance of any dam regulated under the Virginia Dam Safety Act. When setting civil penalty amounts, the Board shall consider (i) the nature, duration, and number of previous instances of failure by the owner to comply with requirements of law relating to dam safety and the requirements of Board regulations and orders; (ii) the efforts of the owner to correct deficiencies or other instances of failure to comply with the requirements of law relating to dam safety and the requirements of Board regulations and orders that are the subject of the proposed penalty; (iii) the cost of carrying out actions required to meet the requirements of law and Board regulations and orders; (iv) the hazard classification of the dam; and (v) other factors deemed appropriate by the Board. The Board is authorized to establish and collect application fees from any dam safety certificate applicant to be deposited into the Dam Safety, Flood Prevention and Protection Assistance Fund for the administration of the dam safety program, administrative review, certifications, and the repair and maintenance of dams. The board is authorized to promulgate regulations for the proper administration of the Soil and Water Conservation District Dam Maintenance, Repair, and Rehabilitation Fund. Code of Virginia, Title 10.1, Chapter 6, Article 2.

- DCR's Virginia Soil and Water Conservation Board is authorized to establish regulations for the proper administration of the Conservation, Small Watersheds Flood Control and Area Development Fund. Code of Virginia, Title 10.1, Chapter 6, Article 4.
- Federal regulations (44 CFR 59-65) apply to the Floodplain Management Program.
- National Flood Insurance Act of 1968; 42 USC §4001 et seq.

#### **Service Area Customer Base**

Customer(s)	Served	Potential
Boards and Foundations	1	1
Government Agencies (Federal, State, and Local)	300	310
Regulated Community	770	1,670
Soil and Water Conservation Districts	47	47
Special Customer Groups	200	500

#### **Anticipated Changes In Service Area Customer Base**

Due to changes in regulatory requirements, hundreds of additional dams are required to meet regulatory standards which is generating an increased demand for the services of dam safety engineers and central office staff.

There are approximately 15 Virginia communities that have been identified as flood-prone, but have not yet joined the National Flood Insurance Program. These communities will be invited to join the program and will be expected to increase demand for the services of the Floodplain Management Program staff.

# Service Area Plan

## Department Of Conservation And Recreation

### Dam Inventory, Evaluation and Classification and Flood Plain Management (50314)

---

#### **Service Area Partners**

Boards and Foundations

#### **Service Area Partners**

Contractual Services

#### **Service Area Partners**

Educational Institutions

Virginia Colleges and Universities

#### **Service Area Partners**

Engineers and Consultants

#### **Service Area Partners**

Federal Agencies

U.S. Department of the Interior; Environmental Protection Agency; Federal Emergency Management Authority; Federal Energy Regulatory Commission; U.S. Housing and Urban Development; National Oceanographic and Atmospheric Administration; Natural Resources Conservation Service; Tennessee Valley Authority; U.S. Army Corps of Engineers; U.S. Fish and Wildlife Service; U.S. Forest Service; U.S. Geological Survey

#### **Service Area Partners**

Local Governments

Water and Sewer Authorities; Emergency Managers; Local Planning, Zoning and Building Officials; Parks and Recreation Departments; Engineering and Public Works Officials

#### **Service Area Partners**

Non-profits

#### **Service Area Partners**

Regional Planning District Commissions

#### **Service Area Partners**

Soil and Water Conservation Districts

#### **Service Area Partners**

State Agencies

Virginia Department of Agriculture and Consumer Services; Virginia Department of Corrections; Virginia Department of Historic Resources; Virginia Department of Mines, Minerals and Energy; Virginia Department of Housing and Community Development; State Corporation Commission; Virginia Department of Emergency Management; Virginia Department of Environmental Quality; Virginia Department of Forestry; Virginia Department of Game and Inland Fisheries; Virginia Department of Health; Virginia Department of Transportation; Virginia Institute of Marine Science; Virginia Marine Resources Commission

#### **Service Area Partners**

Vendors

# Service Area Plan

## Department Of Conservation And Recreation

### Dam Inventory, Evaluation and Classification and Flood Plain Management (50314)

---

#### **Service Area Products and Services**

- Permitting, Regulation, and Enforcement
- Public Safety (dam safety, law enforcement, etc.)
- Mapping funds for Dam Break Inundation Zones and Areas of Special Flood Hazards
- Regulatory Programs - Information
- Technical and Planning Assistance
- Public Education
- Financial Assistance
- Mapping Coordination and Project Management for Special Flood Hazard Areas
- Public Information

#### **Factors Impacting Service Area Products and Services**

- state funding levels
- insufficient staffing levels in key program areas
- declining federal funding levels
- expanding state and/or federal requirements

#### **Anticipated Changes To Service Area Products and Services**

- With the recent expansion of the number of dams regulated by DCR, the Department will need to expand services and products to both educate the public about Dam Safety Act requirements and to properly enforce the law.
- DCR is also considering regulatory amendments that may result in the need for further increasing services.
- Additionally, with the 2005 legislative change to the criteria governing the expenditure of funds from the Flood Prevention and Protection Assistance Fund, DCR needs to develop new grant criteria to allow for grants for dam break inundation zone mapping and to draft a dam break inundation zone model ordinance.
- With FEMA's current focus on modernizing the national inventory of flood hazard studies and mapping, DCR staff will increasingly be involved in mapping updates through 2010.
- Increased weather events create the periodic and unpredictable need for additional services from the floodplain staff.

#### **Service Area Human Resources Summary**

##### **Service Area Human Resources Overview**

# Service Area Plan

## Department Of Conservation And Recreation

### Dam Inventory, Evaluation and Classification and Flood Plain Management (50314)

#### Service Area Full-Time Equivalent (FTE) Position Summary

Effective Date:

Total Authorized Position level .....

Vacant Positions .....

Non-Classified (Filled).....

Full-Time Classified (Filled) .....

Part-Time Classified (Filled) .....

Faculty (Filled) .....

Wage .....

Contract Employees .....

Total Human Resource Level .....

#### Factors Impacting Service Area Human Resources

#### Anticipated Changes in Service Area Human Resources

#### Service Area Financial Summary

Funding for the Dam Safety Program is primarily from Virginia's General Fund.

FEMA provides 100% funding for managing the Map Modernization Program in Virginia through the FEMA MMMS grant.

FEMA provides a portion (approximately 75%) of the funding for assisting localities with compliance and enforcement of Floodplain Management ordinances through the FEMA CAP-SSSE grants.

Department of Homeland Security/ FEMA provides a small annual Administrative Grant to DCR to support the Commonwealth's Dam Safety Program.

The Department has a documented need to add additional staff and operating funds to properly administer the expanded Dam Safety Program. Virginia's engineers are currently responsible for 277 dams each, while staff in 10 East Coast states average 130 dams per employee.

	<u>Fiscal Year 2007</u>		<u>Fiscal Year 2008</u>	
	General Fund	Nongeneral Fund	General Fund	Nongeneral Fund
<b>Base Budget</b>	\$1,031,595	\$290,436	\$1,031,595	\$290,436
<b>Changes To Base</b>	\$0	\$0	\$0	\$0
<b>SERVICE AREA TOTAL</b>	<b>\$1,031,595</b>	<b>\$290,436</b>	<b>\$1,031,595</b>	<b>\$290,436</b>

# Service Area Plan

## Department Of Conservation And Recreation

### *Dam Inventory, Evaluation and Classification and Flood Plain Management (50314)*

---

## Service Area Objectives, Measures, and Strategies

### Objective 50314.01

#### ***Reduce potential loss of life and property damage due to severe flooding and dam failures.***

Throughout Virginia, there are thousands of lives, homes, businesses and property placed at risk during floods and dam failures. DCR programs relating to the enforcement of the Virginia Dam Safety Act, the Impounding Structure Regulations, and the State and Federal Floodplain Management requirements seek to reduce such loss.

#### **This Objective Supports the Following Agency Goals:**

- Enhance public safety by administering effective dam safety and flood plain management programs.

#### **This Objective Has The Following Measure(s):**

- **Measure 50314.01.01**

##### ***Percentage of known dams regulated by Virginia with regular operation and maintenance certificates.***

**Measure Type:** Outcome      **Measure Frequency:** Annually

**Measure Baseline:** As of March 2006, 68% of the dams known to require state certification have regular operation and maintenance certificates.

**Measure Target:** 70% of the dams known to require state certification will have regular operation and maintenance certificates by the end of FY07.

##### **Measure Source and Calculation:**

The number of dams that fall under state regulation dramatically increased with the adoption of state legislation effective in 2002. The legislation changed the characteristics of regulated dams to be more in line with federal guidance. DCR's division of Dam Safety and Floodplain Management maintains an inventory of all dams in Virginia and tracks compliance status. In measuring the results, staff will exclude those dams in the inventory that do not require certificates and those that we have insufficient data on to determine the status. Of the remaining dams, staff will calculate the percentage for which a current regular operation and maintenance certificate has been issued by the Virginia Soil and Water Conservation Board. Emphasis will be placed on getting high-hazard dams under state regulation. This measure will likely fluctuate due to greater numbers of dams coming into the regulatory system and stricter enforcement of those already in it.

# Service Area Plan

## Department Of Conservation And Recreation

### *Dam Inventory, Evaluation and Classification and Flood Plain Management (50314)*

---

- **Measure 50314.01.02**

*Percent of communities compliant with FEMA floodplain regulations.*

**Measure Type:** Output

**Measure Frequency:** Annually

**Measure Baseline:** As of July 1, 2005, the National Flood Insurance Program's (NFIP) inventory indicated that 285 communities were required to be compliant with FEMA floodplain management regulations and 85% of the communities are currently compliant.

**Measure Target:** 95% of communities in the NFIP inventory will be compliant with local regulations that fully meet FEMA's floodplain management regulations.

**Measure Source and Calculation:**

DCR's Division of Dam Safety and Floodplain Management maintains a NFIP inventory of Virginia communities which tracks compliance with FEMA regulations and the number of flood insurance policies issued. By evaluating data from the inventory and using established minimum criteria, staff determines priorities for community visitation. Compliance will be based on the results of community assessment visits conducted with local officials and each community's adoption of a compliant floodplain management ordinance.

**Objective 50314.01 Has the Following Strategies:**

- Develop a dam break inundation zone model ordinance.
- Update and maintain inventory of dams in Virginia.
- Conduct site visits of dams.
- Review dam certificates and permit applications and make recommendations to the Virginia Soil and Water Conservation Board.
- Provide public education of the proper inspection, maintenance, and operating requirements of dams.
- Provide technical assistance, education, and outreach to localities and citizens on floodplain management and flood hazard mapping issues.
- Assist FEMA with the management and prioritization of flood mapping projects.
- Provide updates to FEMA's flood mapping needs inventory based on input from localities.